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DEREGULATION AND CONCENTRATION IN ELECTRONIC MEDIA

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Abstract

This paper presents an analysis of trends in concentration of electronic media industries in Australia over the past two decades. The industries examined include Broadcast television and Radio, Pay Television, Film and Video Production, ISPS and Search Engines. The related research is a component of the International Media Concentration Research Project headed by the Columbia Institute of Tele-Information and involving participants from over 30 countries (for details, see: http://internationalmedia.pbworks.com/). The goal of the project is to go beyond the rhetoric to an academic, empirical, dispassionate, and data-driven analysis of industry concentration trends and their drivers. The project has no agenda beyond understanding what is happening and why.

Introduction

Media concentration has been a highly contentious issue around the world. Legislators in democratic countries have always been concerned about the power of the electronic media to influence public opinion and the consequential risk of that power being undesirably concentrated in the hands of a few. As a result, the popular media in many countries are not only subject to competition laws but also to special regulation aimed at protecting the diversity of information source available to society. But even with extensive ownership controls that have been implemented in some sectors, traditional media are becoming more, rather than less concentrated. While the emergence and growth of the Internet offered the hope of a multiplicity of diverse information sources with the potential to counterbalance the negative effects of concentration in traditional media, the potential so far appears to have remained largely unrealised.

The concerns with media concentration and its impact on diversity are encapsulated by the Federal Communications Commission (2003) as follows:

> … owners of media outlets clearly have the ability to affect public discourse, including political and governmental affairs, through their coverage of news and public affairs. Even if our inquiry were to find that media outlets exhibited no apparent 'slant' or viewpoint in their news coverage, media outlets possess significant *potential* power in our system of government. We believe sound policy requires us to assume that power is being, or could be, exercised. (Emphasis in original)

In Australia, Government intervention for the protection of diversity of information to society and prevention of undue concentration of the power to influence public opinion has a long history. Legislators have long been concerned about the 'powerful influence for good or evil' of broadcasting (Joint Parliamentary Committee on Wireless Broadcasting 1942) and over time have sought to regulate against concentration of ownership with various measures, including limits on services with common ownership, prohibition of cross-media ownership, and control of foreign ownership, as well as implementing specific regulations for delivery of a diversity of information and entertainment to the public.

In addition to their economic functions, media operate in what has been termed the 'marketplace of ideas'. As for economic markets, a large number of independent sources of information competing with each other is deemed necessary for the attainment of socially efficient outcomes. In the ideas market, benefits are maximised when consumers are provided with the widest possible range of competing sources of information. Notwithstanding the competition analogies between an economic market and the ideas market, it is important to recognise that while standard tools used to measure economic concentration in a market are not necessarily effective indicators of diversity in the ideas market.

The global concern with media concentration has led to collaboration of researchers from more than 30 countries in implementing the International Media Concentration (IMC) Project to study changes in media concentration using a common methodology. The project's goal is to enable researchers to go beyond the rhetoric and provide a dispassionate and data-driven analysis of trends and their drivers for their respective countries. The international dimension is crucial in order to understand the differences in media concentration across countries, because in every country there are special circumstances that may obscure the broader trends. The project seeks to determine the potential reasons behind these differences, and to isolate common trends. It will also create a database useful for other applications.

This paper presents some of the findings of the Australian component of the IMC. In particular, it examines concentration trends in traditional broadcast television and radio, subscription television, and film and video production, as well as internet service providers (ISPs) and internet search engines as examples of new media. While changing trends in media concentration raise a variety of policy questions regarding the desirability and effectiveness of media regulation, analysis of those questions is beyond the scope of IMC and they are consequently not addressed in this paper. After a brief description of the research methodology, the paper examines concentration trends in each of the media of interest, and then concludes by drawing together some of the implications of the findings.

Methodology

The project spans across both traditional media industries and new media including telecommunications operators given their key role in the delivery of digital services. For each sector, two widely used standard concentration indices are calculated and used to describe changes in concentration over the past two decades. The two indices are: C4 ratio, which indicates the aggregate share of the market held by the largest four operators in the sector; and the Herfindahl-Hirschman Index (HHI), which is the sum of the squares of the shares of the market output held by individual operators. While both are well known indicators of economic concentration they are not always good measures of media influence. To provide an indication of potential media influence, a third index — Media Ownership and Diversity Concentration Index (MOCDI or Noam-index) — which takes account of the number of voices available in the market is part of the standard analysis of the international research project.

What do the indices mean? C4 is a relatively straight forward measure of the aggregate share of the market (or potential strength) held by the largest four operators. An industry where the largest four operators control more than 50 per cent of the market is considered to be concentrated. The index does not differentiate between the operators. Consequently, it is unable to distinguish between clearly different situations of say four operators each having an equal share of the market (say 20% each) and a clearly dominant operator (with say 70% of the market) competing against 3 smaller operators (with say aggregate share of 10% of the market). In both cases the index would be 80%.

The HHI is the sum of the squares of the market share of all individual operators. Only 'known' market shares are included in the calculation of the index. The value of the index can range from a very low value (close to zero) for sectors with a very large number of operators each having an infinitesimal share of the market, to 10,000 for the case of a single monopoly operator. A HHI value <1000 generally indicates an unconcentrated market, a value in the range 1000–1800 indicates moderate concentration, and a higher value indicates high concentration. In the concentration trends figures presented later in this paper, the unconcentrated/moderately concentrated and moderately concentrated/highly concentrated boundaries are highlighted by horizontal dotted lines with reference to the HHI scale.

By taking account of the number of voices available in the market, the MOCDI or Noam-index takes acknowledges that often market power alone does not sufficiently reflect media diversity. The availability of alternatives, even if they are small, permits different viewpoints. A media market consisting of four major and four minor firms is more diverse than one of merely four major firms, even if the market power indices would be virtually identical. MOCDI is calculated by dividing the HHI index by the square root of the number of independent operators in the market.

The methodology acknowledges that market definitions and indices are not perfect measures of conditions at any point in time. However, if applied consistently over time and across countries, they are very useful in identifying trends and changes in conditions. For this purpose, historical data for up to two decades (the period being determined by data availability) are used to calculate the selected indices at regular intervals (typically four years). The analysis is primarily concerned with determining trends over the observation period and identifying likely explanatory causes

Broadcast television (Free-to-air TV)

Broadcast television in Australia was established in 1956 as a dual public–private system in which the government strictly controlled entry and the size of the industry. In the public sector, the Australian Broadcasting Commission (now Corporation), the established public radio networks operator, had its mandate extended to the operation of a public television network with national coverage. A second national public television broadcaster (the Special Broadcasting Service) to provide multicultural programming began operating in the early 1980s and was gradually extended nationally.[1] The commercial sector developed under strict licensing provisions of entry. Initially, individual commercial television owners were prohibited holding a controlling interest in more than one station in any one area and two stations nationally. In July 1987 the national 'two station' restriction was replaced by a prohibition of multiple station ownerships with an aggregate population reach of more than 60 per cent of the national population of Australia. The aggregate reach limit was increased to 75 per cent of the national population in 1992 and continues to be in force.

The number of commercial operators in the market was also strictly controlled. Initially, two commercial television licences were allocated in each of the mainland state capital cities. In other areas only a single commercial television licence was issued. A third commercial operator was progressively licensed in each of the mainland capital cities in the period 1965–1988. In the late 1980s, through the policy of 'market aggregation', existing commercial operators in designated contiguous regions were permitted to extend distribution of their signal in competition with each other in the aggregated area. The implementation of the current digital conversion plan has brought about some expansion of the number of digital channels being broadcast by each of the pre-existing operators. The digital conversion policy, however, prohibits the licensing of any new operators at least until the end of the conversion period.

These regulatory provisions have had considerable impact on the level of ownership concentration in the industry. Initially, concentration was low and remained so until 1987. The post-1987 regulatory regime led directly to the formation of major commercial networks controlling individual stations in each of the mainland state capital cities — the extension of the aggregate population reach to 75 per cent was specifically implemented to allow this. Similarly, the population reach restrictions together with implementation of the market aggregation policy contributed significantly to the formation of regional commercial networks. As a consequence, in addition to the two public

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1 The Special Broadcasting Service was establishes as a radio broadcaster in 1978 (see below) and was given responsibility for multicultural television in the 1980s.

stations with national coverage, the main players in Australian broadcast television are three metropolitan commercial networks and three regional commercial networks. The remaining independently controlled operators (three) are economically small entities operating remote and regional stations.

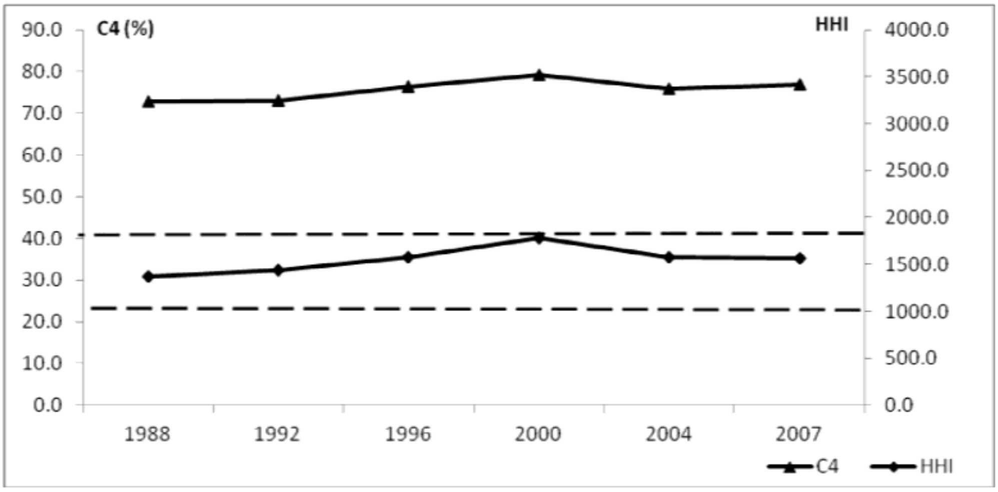
In terms of content diversity, the situation is even more concentrated. Content agreements between the metropolitan and regional and remote networks essentially result in the same programming being broadcast nationally, with the insertion of only minimal levels of local information programs.

Table 1: AUSTRALIA: BROADCAST TELEVISION, REVENUE SHARES AND CONCENTRATION INDICES (1988-2007)

	(All data relate to fiscal year ending 30 June)					
	1988	1992	1996	2000	2004	2007
	Share of Total Revenue (%)					
COMMERCIAL TV						
Seven Network	17.0	21.2	22.8	26.2	22.1	24.9
Nine Network	23.6	24.4	25.7	27.9	25.8	21.5
Ten Network	17.6	11.5	15.4	13.6	17.9	18.2
Other Commercial TV	24.7	24.4	20.4	17.8	20.5	20.0
PUBLIC TV						
ABC	14.6	16.1	12.5	11.6	10.2	12.4
SBS	2.5	2.5	3.1	3.0	3.5	3.0
Total Revenue ($A million)	**1,592.9**	**2,282.0**	**2,913.8**	**3,828.7**	**4316.7**	**4,689.9**
C4	72.9	73.2	76.5	79.2	76.0	77.0
HHI	1372	1435	1579	1780	1578	1566
Noam Index	380	398	422	514	476	472

Source: Estimates by authors based on original data from: Australian Communication and Media Authority, Broadcasting Financial Results (various years); Australian Broadcasting Corporation, Annual Reports; Special Broadcasting Service, Annual Reports; Australian Broadcasting Tribunal, Annual Reports; and Communications Law Centre, Update, 'Media Ownership Update' (various years).

Figure 1: Australia: Broadcast Television Concentration Indices (1988–2007)



Both the C4 and HHI indices for the Australian broadcast television industry indicate moderate levels of concentration. The top four operators (three main commercial networks and ABC) control around 75 per cent of the revenue accruing to the industry. The individual shares of revenue are not highly dissimilar for the three commercial operators each being in the range of $18–25 million in 2007 (average of $21.5 million). In the same year, the ABC's revenue was somewhat less than 60% of the metropolitan commercial networks' average.

As noted above, C4 and HHI are concerned primarily with economic ownership concentration. In television, however, control of sources of programming can be vital to content diversity and influence of opinion. Given the prevailing programming agreements (affiliations) between the metropolitan and regional/remote commercial operators, which virtually have no scope to obtain popular programming from other sources, content diversity is very low.

Broadcast radio

After a brief initial period of total private ownership of radio broadcasting, the Australian radio industry was reconfigured in the early 1930s as a dual public–private system. Public radio broadcasting (Australian Broadcasting Commission) was developed as a mixture of national and regional/local networks. Prior to 1987, strict regulation of commercial radio prohibited the ownership of more than one station in a local broadcasting area, more than four in any one state, and more than eight nationally. These state and national limits on the ownership of radio stations were relaxed in 1987 to allow common ownership of up to 50 per cent of the stations in any one state, and up to 16 stations nationally. Concurrently, the introduction of Cross-media rules[2] prohibiting common ownership of radio, television and newspaper combinations in the same market (introduced in 1987and extended in 1988) led to the divestiture of many media assets including radio stations.

Another major factor influencing the structure of the broadcast radio industry was the introduction of FM radio in the mid-1970s. The new entrants in FM commercial radio were able to carve out large shares of their local markets and quickly developed into a new competitive force in the industry. The restructuring of the industry was given further impetus by the promulgation of the *Broadcasting Services Act 1992* which removed all restrictions on ownership of commercial radio in Australia except for limiting common ownership of more than two commercial radio stations in any local broadcasting area. The Special Broadcasting Service was established as a second public radio broadcaster in 1978, initially with transmitters in Sydney and Melbourne and subsequently progressively expanded into a national network. The ABC service was also expanded with the development of additions networks. Community radio, including Indigenous radio services, was developed in tandem with the expansion of public and commercial radio.

Since 1992, restructuring of the broadcast radio industry continued steadily with changes in the ownership of several major networks and many stations. Some new networks have emerged from mergers and acquisition of existing stations. While many broadcast radio properties change hands, the effects on concentration of ownership have not been large. Throughout the period of observation (1992–2007) there has been little change in the indices of concentration of interest. The HHI index in particular has remained reasonably steady near the lower limit of the moderate concentration range. Throughout the period, the main national public broadcaster (the ABC) has remained as the largest single operator although its share of industry revenue declined significantly with consequential effects on the concentration ratio. However, in terms of overall concentration, the emergence and growth of Austereo into the largest commercial operator appears to have produced counterbalancing effects on the industry concentration ratio.

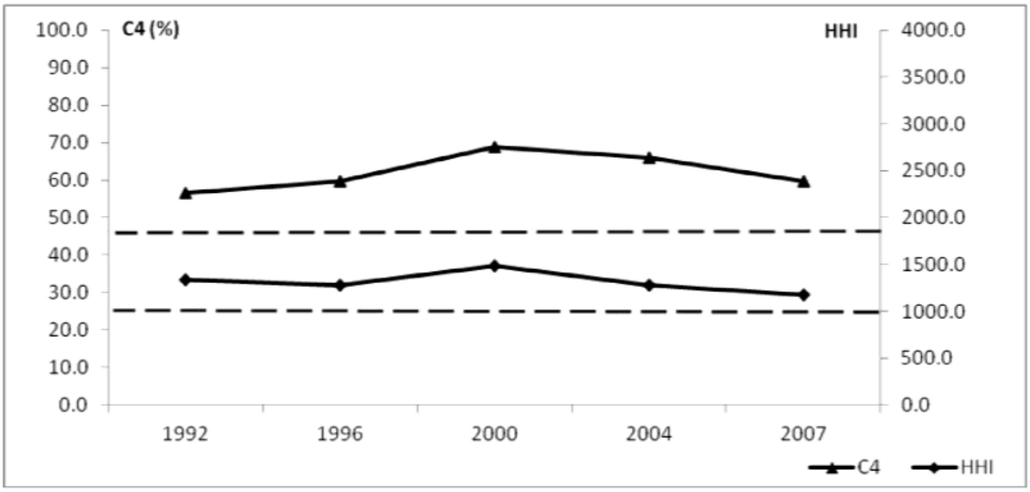
[2] The cross- media rules were repealed in 2007.

Table 2: Australia: Broadcast Radio Revenue Shares and Concentration Indices (1992–2007)

	Share of Total Revenue (%)				
	1992	***1996***	***2000***	***2004***	***2007***
Commercial Radio					
Austereo	7.9	21.5	16.1	15.8	21.5
Hoyts Media	9.9				
Australian Radio Network	5.2	10.0	13.1	11.8	10.4
DMG			6.9	13.8	8.8
Tricom (in 1992)/Southern Cross	1.4	2.5	3.9	6.5	7.5
Radio Superhighway/Macquarie Network		1.4	2.8	3.6	3.1
Broadcast Operations			3.4	3.0	3.0
Other Commercial Radio	34.0	29.8	14.7	10.6	34.0
National Radio					
Australian Broadcasting Corporation	33.2	29.1	27.3	24.4	23.7
Special Broadcasting Service	3.0	2.7	2.7	2.9	2.4
Total Australia ($A Million))	690.2	813.8	1053.6	1172	1391.1
C4	56.5	59.8	68.8	66.1	59.7
HHI	1330.7	1277.0	1482.4	1284.0	1174.8
Noam Index	503.0	425.7	494.1	387.2	354.2

Source: Estimates by authors based on original data from: Australian Communication and Media Authority, Broadcasting Financial Results (various years); Australian Broadcasting Corporation, Annual Reports; Special Broadcasting Service, Annual Reports; Australian Broadcasting Tribunal, Annual Reports; and Communications Law Centre, Update, 'Media Ownership Update' (various years).

Figure 2: Australia: Broadcast Radio Concentration Indices (1992–2007)



Multichannel (subscription) television

The prevailing broadcast licensing regime prior to the promulgation of the *Broadcasting Services Act 1992* (BSA) strictly controlled the establishment of television services likely to compete with broadcast free-to-air television. A limited form of satellite delivery of multichannel services was sanctioned by BSA and two licences were subsequently auctioned. However, because of technical delays and other difficulties subscription television commenced operating in 1995 on a variety of delivery platforms including satellite, terrestrial multipoint distribution system and cable. There are no major restrictions on the ownership of subscription television services. However, there are considerable barriers to entry into the industry both in relation to delivery platforms and in access to programming.

The industry developed slowly and take-up still remains below 30 per cent of households. Control of major sources of content by established media, particularly Foxtel, became a potent barrier to entry into the industry as well as a major constraint to competitiveness. Control of the output of several major Hollywood producers (not available to competitors) enabled Foxtel to establish a dominant position from the start and to further consolidate that position in later years. Austar and Foxtel do not compete with each other. Under a territorial program distribution arrangement between the two operators, Foxtel's market is confined to the 5 main state capital cities and the Gold Coast, while Austar distributes the same programs elsewhere. With a limited cable distribution network at its disposal and unable to secure access to the exclusive Hollywood content controlled by Foxtel, Optus (telecommunications carrier) faced considerable difficulties in growing its customer base. In 2002, after reaching a program sharing agreement with Foxtel, Optus withdrew from the market and became a reseller of Foxtel to customers connected to its cable network. A very small number of other players operate localised cable distribution system in regional areas and a limited satellite service.

The trend in the concentration ratios in the period under observations reflect the increasingly dominant position of Foxtel.

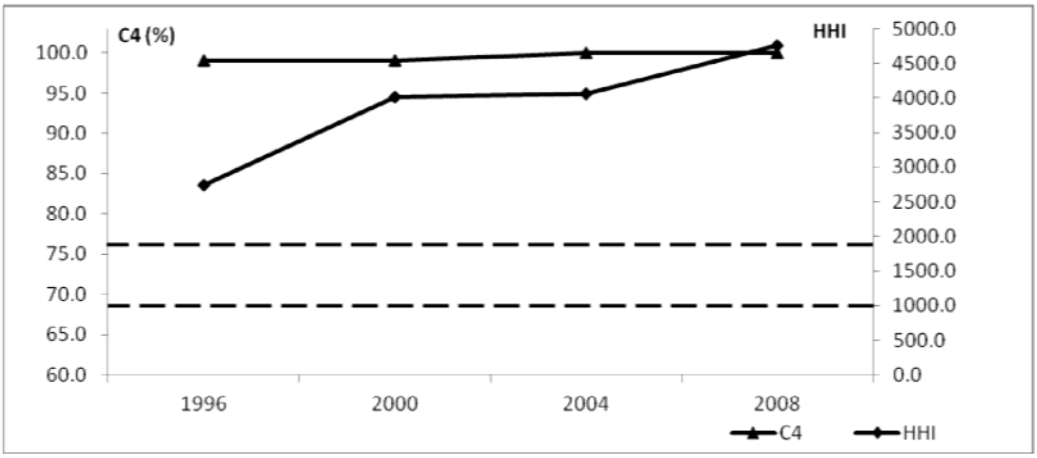
Table 3: AUSTRALIA: SUBSCRIPTION TELEVISION REVENUE SHARES AND CONCENTRATION INDICES (1996-2008)

	1996	2000	2004	2008
	Share of Total Revenue (%)			
Australis Media	14.0			
Foxtel	30.7	54.4	56.6	63.1
Austar	19.5	27.9	26.7	27.2
Optus (Foxtel reseller post-2002)	34.9	16.4	12.1	6.2
Other	0.9	1.3	4.5	3.5
Total Revenue ($A million)	**215**	**1,007**	**1,453**	**2,252**
C4	99	99	100	100
HHI*	2735.5	4008.6	4068.0	4755.5
Noam Index*	1116.8	1792.7	1819.3	2126.7

NOTE: * Based on top 3 firms for 2000 and subsequent years.

Source: Estimates by author based on data from various sources including companies' annual reports and other sources

Figure 3: Australia: Subscription Television Concentration Indices (1996–2008)



Film and video production

The Australian film and video production and post-production services industry is made up of more than 2000 establishments most of which are very small in size. According to the Australian Bureau of Statistics (2008), in 2007 only 18 of the establishments in the sector employed more than 100 people accounting for 39 per cent of industry employment and 31.3 per cent of income. The vast majority (2,120) of the establishments operating in the industry were very small with average employment of less than two employees mainly engaged in providing freelance services by the principals and/or associates to larger producers. Included among the larger production establishments are the operations of broadcast and subscription television services producing programming for their own use (some 77 per cent of first-release broadcast hours being in the form of sports and news and current affairs). More than half of all first release broadcast hours are produced in-house by television operators. More than two thirds of all establishments are primarily engaged in the production of television programs.

Overall, ABS data indicate that in 2007 productions made primarily for television accounted for more than 72 per cent of all production costs. An additional 13 per cent of production expenditure was devoted to production of television commercials, station promotions and program promotions. Only 14.5 per cent (approximately $273 million) was for productions made other than for television. The main components of non-television production expenditure were $183.8m for feature films and $71.7m for corporate marketing and training media. In total 652 film and video production and post-production services businesses were engaged in the production of non-television programs.

Data on individual business shares of production activity are very difficult to obtain. Most business are unincorporated or set up as private companies that are not required to publish annual accounts. Relevant published data are available for some of the larger public corporations engaged in film and video production activities, but often the data are not readily separable from other activities. Consequently, the data contained in the following table comprises actual data, when available, 'adjusted' actual data in cases where film and video production data were included in a broader range of activities, averages published by ABS, and estimates produced by the author (broadly consistent with ABS averages).

The calculation of industry concentration ratios is based only on data relating to businesses with more than 10 employees. As noted above the vast majority of smaller businesses are engaged in freelance activities or sub-contracting their services to larger producers. Their omission from the calculation of concentration indices should not have any significant impact on the results.

In the period under observation there is a distinct increasing trend in industry concentration. This is primarily due to the development and growth of Village Roadshow from an average larger local producer to a substantial international film producer giving it a dominant position in production activities in the domestic market.

Figure 4: Australia: Film and Video Production, Concentration Indices (1997–2009)

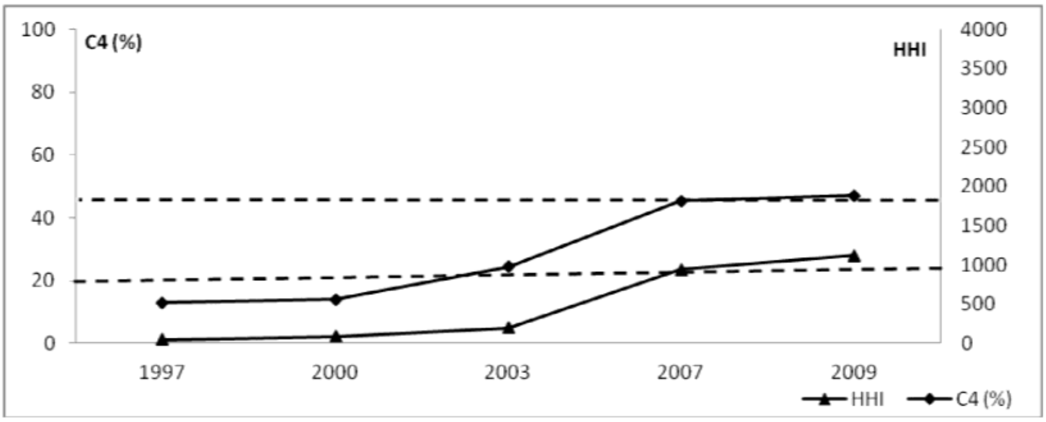


Table 4: Australia: Film and Video Production, Value of Production and Concentration Indices (1997–2009)

Production Company	1997(a) Prodn Val ($'000)	share (%)	2000 Prodn Val ($'000)	share (%)	2003 Prodn Val ($'000)	share (%)	2007 Prodn Val ($'000)	share (%)	2009 Prodn Val ($'000)	share (%)
Village Roadshow	36.0	4.8	57.5	5.1	101.3	10.1	324.0	28.7	395.0	31.6
Endomol Southern Cross	24.0	3.2	38.4	3.4	53.0	5.3	98.2	8.7	122.8	9.8
GTV Holdings	22.0	2.9	34.0	3.0	40.0	4.0	47.0	4.2	54.1	4.3
Beyond International	16.0	2.1	28.0	2.5	51.0	5.1	42.8	3.8	16.7	1.3
3 other 100+ employees (@ $ 9m each)	27.0	3.6								
21 other 100+ employees (@ $15.5m each)			325.0	28.6						
32 other 100+ employees (@ $9.4m each)					300.8	29.9				
14 other 100+ employees (@ $8.8m each)							123.2	10.9		
14 other 100+ employees (@ $5.5m each)									77.0	6.2
other 10 +employees	631.9	83.5	653.2	57.5	460.0	45.7	494.5	43.8	583.6	46.7
Total Prodn Val producers 10+ employees	756.9	100.0	1136.1	100.0	1006.1	100.0	1129.7	100.0	1249.2	100.0
Total Prodn Val producers 10+ employees	756.9	48.0	1136.1	63.4	1006.1	63.0	1129.7	55.7	1249.2	60.0
Total Prodn Val smaller producers	819.9	52.0	655.9	36.6	590.9	37.0	898.4	44.3	832.8	40.0
Total Prodn Val Australia	1576.9	100.0	1792.0	100.0	1597.0	100.0	2028.1	100.0	2082.0	100.0
Producers 100+ employees (Number)	7		25		36		18		18	
Total Prodn Val establishments 10+ employees (b)	176		189		187		203		200	
Total establishments (Number)	2003		1975		2174		2492		2021	
C4	12.9		13.9		24.4		45.3		47.1	
HHI	49.9		91.0		198.6		938.3		1119.8	
Noam Index	3.8		6.6		14.5		65.9		79.2	

NOTES: All data for establishment with less than 10 employees excluded from calculation of indices
*Production Values for top four Producers : Indicative estimates only
**More than 90 per cent of production establishments have fewer than 10 employees and include a very high proportion of freelance service providers
Prodn Val = Production value

Data Sources: Australian Bureau of Statistics, Television, Film and Video Production and Post-Production Services, Cat no. 8679.0, (various years), IBISWorld (2010) 'Film and Video Production in Australia' and estimates by author.

Internet service providers

More than 400 Internet Service Providers (ISP) businesses are estimated to be currently active in the Australian ISP industry. The vast majority however are small (with less than 1000 subscribers) with many servicing localised geographic markets and often operating as 'virtual' ISPs reselling connectivity provided by major operators. Less than 10 per cent of ISPs have a subscriber base of more than 10,000 with only 11 having more than 100,000 subscribers.

The industry has been experiencing considerable consolidation. A decade ago, the number of ISPs operating in the industry was almost 700 and remained around that level for several years. Starting in 2006 the number of ISPs operating in Australia rapidly declined contracting to just below 400 by the end of 2008 with many of the smaller operators going out of the market. The contraction in the number of smaller/medium ISPs is reported to be continuing (ABS 2010).

The period 1998–2008 was one of rapid take-up of internet by households and, particularly from 2003 onwards, of rapid adoption of broadband. In 1998, only 16 per cent of Australian household had access to the internet, by 2008 the proportion of households with internet access had quadrupled to 72 per cent (ABS 2009). Incumbent telecommunications carriers extended their established unique positions in the telephony market to the provision of internet services. This gave them the advantage of vertical integration in the supply of ISP services. As alternative delivery platforms were not available, other ISPs were reliant on access to the networks of incumbent carriers to deliver their services. While access was guaranteed by regulation, the incumbent telecommunications carriers were advantage by their established relationships with customers. This was particularly so for Telstra (the dominant telecommunications carrier) with its ubiquitous national network presence.

The aggregate market share of the top four ISPs more than doubled in the period 1998–2008 with C4 increasing from 31.3 per cent in 1998 to 67.3 per cent in 2008. Much of the increase in C4 is due to the growth in the market share of the largest ISP, *Bigpond* (owned by Telstra), which increase from 13 per cent to 43.8 per cent in the same period. Optus (also a major telecommunications carrier) also experienced a high rate of growth in its market share increasing from 1.7 per cent to 11 per cent. Of particular note is the decline in the market share of OzEmail, one of the successful early entrants in the ISP market that had built up a sizable dial-up internet service. OzEmail was eventually taken over by iiNet transforming the latter from a small regional operator to the third largest ISP in Australia. It should be recalled that, as noted above, the overall market grew rapidly in the period under review. Consequently the growth in the size of the individual ISPs was much greater than would be implied by a simple comparison of the market shares held at the beginning and end of the period.

The consolidation is clearly reflected in the transition of the HHI index from low concentration levels pre-2000, to moderate concentration levels in the first half of the decade, and to high concentration levels in the latter half of the decade.

Table 5: Australia: Internet Service Providers, Subscribers and Concentration Indices (1998–2008)

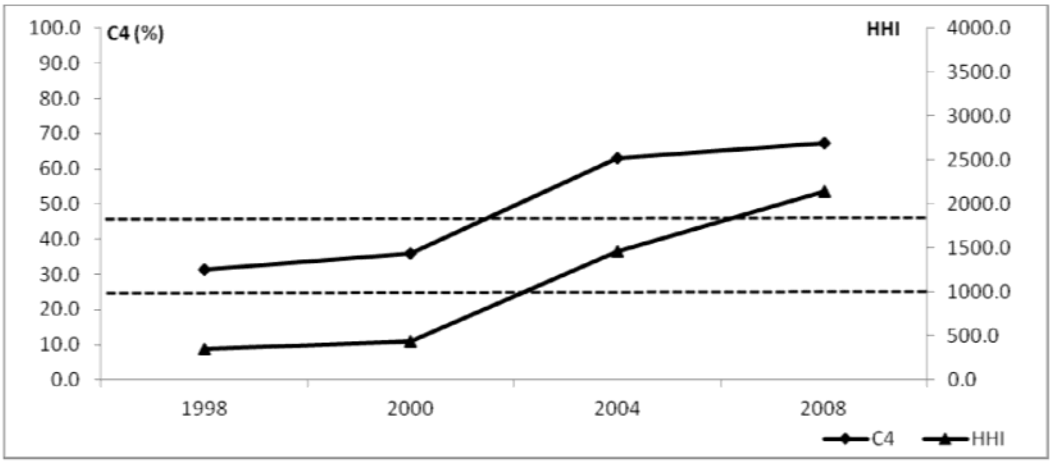
ISP	1998		2000		2004		2008	
	subscribers ('000)	share (%)	subscribers ('000)	share (%)	subscribers ('000)	share (%)	subscribers ('000)	share (%)
Bigpond	300	13.0	600	15.8	1900	33.3	3500	43.8
Optus	40	1.7	170	4.5	750	13.2	880	11.0
iiNet	20	0.9	20	0.5	190	3.3	560	7.0
OzEmail	300	13.0	450	11.8	500	8.8	iiNet	
iPrimus	10	0.4	150	3.9	450	7.9	440	5.5
TPG/SP Telemedia	80	3.5	130	3.4	280	4.9	400	5.0
Chariot	10	0.4	50	1.3	80	1.4	TPG	

ISP	1998 subscribers ('000)	1998 share (%)	2000 subscribers ('000)	2000 share (%)	2004 subscribers ('000)	2004 share (%)	2008 subscribers ('000)	2008 share (%)
Other	1540	67.0	2200	57.9	1550	27.2	2220	27.8
Total subscribers	2300	100	3800	100.0	5700	100.0	8000	100.0
ISPs with >100,000 subscribers (no.)	2		8		10		11	
ISPs with >10,000 subscribers (no.)	29		36		36		27	
Total ISPs	680		696		687		399	
ISPs >100,000 subscribers (mkt share)	70%		69%		75%		75%	
C4	31.3		36.1		63.2		67.3	
HHI	356.5		438.9		1460.7		2139.3	
Noam Index	66.2		73.1		243.5		351.7	

NOTE: No of voices for Noam Index defined as ISPs with more than 10,000 subscribers.

Source: Actual and estimates by authors based on data from a variety of sources including, Australian Bureau of Statistics, 8153.0 — Internet Activity, Australia (various years), companies annual reports, media reports and other sources.

Figure 5: Australia: Internet Service Providers, Concentration Indices (1998–2008)



Internet search engines

The internet search engine market in Australia is dominated by the main global search engines and more specifically by Google whose market share now exceeds 90 per cent. Yahoo and other global search engines that were popular a decade ago have all suffered considerably from the emergence and growth of Google. Yahoo and Altavista appear to have been the main losers, but other engines have not been spared. In the period under review Yahoo's market share declined from 41 per cent in 2001 (the largest in the market) to a share of only 2.4 per cent in 2010. In the same period Altavista's share declined from 18.6 per cent (second largest in the market) to a miniscule 0.1 per cent in 2010.

While the market is dominated by the global search engines, there are several Australian well established search engines available to users. Most of them, however, have limited coverage and depth relative to what is on offer on the global engines. Sensis, benefited considerably from its ownership by Telstra (dominant Telecommunications operator in Australia) and its relationship with Bigpond (the largest ISP in Australia also owned by Telstra). Sensis maintains its own database and sponsored listings. In 2001 it had 9.2 per cent of the Australian market. Its linkages to the Telstra 'family' appear to have insulated it somewhat from the Google onslaught in subsequent years and its share of the market remained relatively stable at about eight per cent. In 2009, however, it entered into a commercial arrangement with Google including adoption of the Google search engine for its operations. Other Australian search engines include Ansearch, Anzwers, Howzat, WebWombat and WotBox. Some tend to operate specialised services. Generally, their market share is very small.

The concentration indices indicate that the ISP market has always been highly concentrated. The C4 values indicate that the four largest search engines in aggregate controlled over 90 per cent of the market throughout the period under review rising to over 98 per cent at the end of the period. The rise of Google at the expense of other previously popular global engines has resulted in dramatic increase in the HHI in the period under review.

Table 6: Australia: Search Engines, Users And Concentration Indices (2001–2010)

	2001		2004		2006		2010	
Search Engine	**users ('000)***	**share (%)**	**users ('000)***	**share (%)**	**users ('000)***	**share (%)**	**users ('000)***	**share (%)^**
Google	1229	15.2	7172	54.0	9190	61.0	na	92.5
Yahoo	3322	41.0	2851	21.4	2127	14.1	na	2.4
ninemsn (MSN)/Bing	1295	16.0	1882	14.2	1948	12.9	na	3.4
Altavista	1507	18.6	440	3.3	85	0.6	na	0.1
Sensis	748	9.2	948	7.1	1268	8.4	to Google (2009)	
OPTUSnet	na	na	na	na	436	2.9	to Google	
Ask		na		na		na	na	0.4
Other		na		na		na	na	1.2
Total users	8101	100	13293	100.0	15054	100.0		100
C4	90.8		96.7		96.5		98.7	
HHI	2598.6		3633.2		4173.1		8573.7	
Noam Index	1162.1		1624.8		1703.7		3834.3	

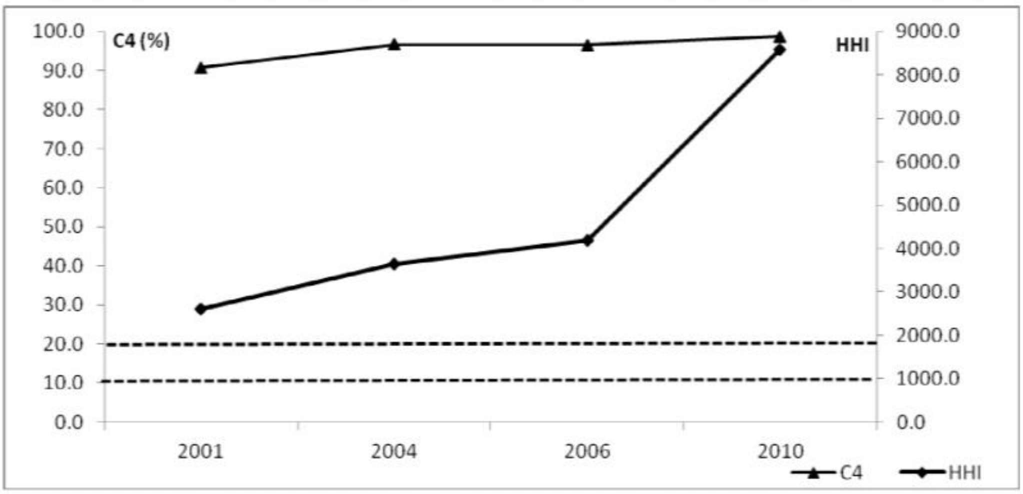
NOTES

Number of voices for Noam Index defined as number of search engines with known market share

* 2001–2006 percentage of survey respondents nominating as main search engine (multiple choices were possible)

Source: Recalibration of Roy Morgan Survey Data (Press Releases 2006/453 and 2006/496), *Hitwise* (27-07-24) and http://statcounter.com/.

Figure 6: Australia: Search Engines, Concentration Indices (2001–2010)



Summary and Conclusion

The preceding analysis of concentration of electronic media industries in Australia revealed different trends.

Concentration of ownership in broadcast television was influenced strongly by major changes to ownership regulation in the period immediately preceding that reviewed in this paper. Before 1987, prohibition of common ownership of more than two television stations ensured a low level of concentration. Its replacement in 1987 with a population reach limit, which in effect allowed common ownership of a television station in each of the five major metropolitan cities in Australia, had an immediate impact on concentration. Prior to that, the three main commercial operators controlled two stations, one each in the two largest metropolitan markets of Sydney and Melbourne. The removal of the two stations limit was quickly followed by changes in ownership of the three major commercial operators, with the new owners moving quickly to acquire properties in other metropolitan markets. This is reflected by the gradual rise in both the C4 and HHI in the period 1988–2000. Although concentration increased, the impact was attenuated by other ongoing ownership controls preventing ownership of more than one television station in any local market and prohibitions of entry into the industry by new players. Concentration peaked in 2000 when one of the three main networks was temporarily in excess of the population reach limits following an acquisition of a group of stations. That year was also a time of considerable turmoil in the industry with all three major commercial networks experiencing financial difficulties which subsequently forced them into receivership. The slight subsequent decline in the concentration ratio is due to the mandated divestiture of assets to ensure new owners remained within the population reach limits.

The situation in broadcast radio was much more fluid. Like broadcast television, broadcast radio had been subject to considerable change in ownership controls immediately prior to the period under review. Entry of new players in to the broadcast radio industry, although strictly controlled by licensing, was not prohibited as was the case for television. In particular, during the decade preceding 1988 several new FM radio broadcasters established themselves in the main metropolitan and regional markets. These, combined with the changes to the pre-existing controls of ownership, brought about extensive changes in the industry. However, the combined effect of the prevailing limit of common ownership of no more than two stations in any one local market and the licensing of up to 12 new large FM stations in the main metropolitan areas, in addition to the prominence of the national public broadcaster, seem to have averted undue concentration. Both C4 and HHI indicate low to moderate concentration in the broadcast radio industry.

While the initial establishment of multicast (subscription) television in Australia was delayed and marred by government regulation, subsequent development of the industry has not been subject to regulatory restrictions of ownership. However, entry into the industry faces considerable barriers particularly in securing content. While some independent content aggregators are available to all multichannel providers, there is a significant level of exclusivity in the movie output of some Hollywood studios and popular sports programs.[3] Foxtel was able to exploit a degree of vertical integration with its partial owners — Telstra (Australia's dominant telecommunications) with regard to cable distribution in major cities and News Limited with regard to exclusive Hollywood movie output — to become the dominant player. Apart from a couple of very small operators, the Australian subscription TV market is subdivided into two exclusive submarkets each served by a single (monopoly) supplier of the same programming, Foxtel in major metropolitan areas, and Austar in regional areas. The high values of both C4 and HHI reflect the high level of concentration in the market.

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3 Anti-siphoning rules restrict acquisition of television rights of prescribed major sporting events. Subscription TV operators can only gain rights to prescribed sports events that are not televised on broadcast free-to-air television.

The Australian film and video production and post-production services industry is largely made up of medium and small enterprises, with many very small establishments engaged in the provision of freelance services to larger production houses. This structure lends itself to the ‘project nature’ of much of the industry’s main production activity for which specialist skills and services are typically brought together for the duration of a project. A large proportion of the industry output is made to order for television internally by television networks themselves or commissioned from other producers. More than two thirds of all establishments are engaged in production of outputs for television.

The nature of the Australian film and video production industry is not conducive to a high degree of concentration. While the industry remains well within the low level concentration band for the whole of the period under review, there is a distinct trend of increasing concentration. At the beginning of the period both the C4 and HHI measures of concentration were very low. They both increased progressively over the period: the market share of the top four producers increased from 13 per cent to 47 per cent (a little short of the 50 per cent upper limit of the unconcentrated band) while HHI increased from 50 to 1120 (in the bottom end of the moderate concentration band). Much of the trend was due to the growth of Village Roadshow whose share of the market increased from five to 32 per cent during the period under review.

In the period from 1998–2008 concentration in the Australian ISP market increased considerably, with the transformation of a relatively unconcentrated market to highly concentrated one. The period coincides with extensive growth in the household internet access. In 1998, only 16 per cent of Australian household had access to the internet, by 2008 the proportion of households with internet access had quadrupled to 72 per cent (ABS 2009). During the same period there was also a transformation of household internet connections telephone dial-up to largely ADSL broadband. The growth of the internet household market provided a significant advantage to incumbent telecommunications carriers over whose network the services were delivered. Unsurprisingly, the dominant incumbent telecommunications carrier, Telstra, was able to exploit this advantage to secure the lion’s share of the market. Other telecommunications carriers, despite deregulation of the telecommunications industry, were largely dependent on Access to Telstra’s network to deliver their services carriers. Consequently, both their appeal to customers and market growth were relatively constrained.

The Australian Internet Search Engines market has always been highly concentrated and dominated by global operators. The situation in Australia largely reflects international developments. While there are several specialised Australian search engines they command only very small market shares. During the period under review the rise of Google at the expense of other previously popular global engines has resulted in dramatic increases in the industry concentration ratios.

The analysis indicates a tendency for increased market concentration in all the reviewed electronic media markets. While regulation has constrained high levels of concentration in mass media markets, such as broadcast television and radio, the inherent economies of scale have still continued to provide incentives for greater concentration. In television, for example, there are major economies of scale in both programming and the supply of national advertising. In both of these areas, major broadcasters were able to increase their market power through commercial agreements that are not constrained by ownership regulation.

The pressures for increase concentration are also evident in the new media. As for all information services once content is created the cost of making it available to larger numbers of users are very small. Increased popularity of a service enables providers to exploit a virtuous circle by increasing investment in content and thus increase its appeal to users. Less popular services face a vicious circle fed by the loss of users and reduced capacity to invest in improvements. Bigpond in the ISP market and Google in the search engine market display some of these characteristics. Bigpond, for example, is one of the most popular website in Australia and offers its ISP subscribers unmetered access to own content. Subscribers of rival ISPs incur a usage charge to download the same content via their ISPs, which in turn do not have as much capacity as Bigpond in providing matching or better content on their websites for unmetered access by their subscribers.

The measures of concentration used in the research discussed above are based on traditional industry definitions. While convergence brought about by the development and rapid growth of online information services may have eroded traditional industry boundaries the resultant impact on industry concentration does not appear to have been significant. Traditional media not only continue to dominate in the domestic market via traditional distribution platforms but have also extended their presence into the online world. Among the 'thousands of voices' accessible online, most have little following and very few have the capacity to challenge the influence of traditional media on public opinion. This would suggest caution should be exercised in any plans for further dismantling of regulation of media concentration on the basis that it will be made redundant by a multitude of online sources of information.

REFERENCES

Australian Broadcasting Corporation (various years), Annual Report.

Australian Broadcasting Tribunal (various years), Annual Report.

Australian Bureau of Statistics (2008), Television, Film and Video Production and Post-production Services, 2006/07 (cat. no. 8679.0) and earlier issues.

Australian Bureau of Statistics (2010), Internet Activity, Australia, Dec 2009 (cat. no. 8153.0) and earlier issues.

Australian Bureau of Statistics (1999), Household use of information technology Australia 2008–09, (cat. no. 8146.0).

Australian Communication and Media Authority (various years): Broadcasting Financial Results.

Communications Law Centre (various years), *Update*, 'Media Ownership Update' special issues.

Federal Communications Commission, *2002 Biennial Regulatory Review: Report and Order and Notice of Proposed Rulemaking*, FCC 03-127, Washington, DC, 2003.

Hitwise Australia (2010), 'Top Websites and Search Engine Analysis' (various dates 2010), Accessed 13 September 2010, http://www.hitwise.com/au/datacentre/main/dashboard-1706.html.

Joint Parliamentary Committee on Wireless Broadcasting (W. Gibson, Chair) (1942), *Report,* Government

Printing Office, Canberra.

Roy Morgan Research (2006a): 'Google Overwhelms Search Competitors in Australia', Article No. 453, 1 February, Press Release.

Roy Morgan Research (2006b): 'It's Google Then The Rest When Searching Online In Australia', Article No. 496, 18 May, Press release.

Special Broadcasting Service (various years), Annual Report.